

ABSTRACT

1 A system and method that allows users to find a song name, artist and
2 performance without having to proceed through many false results. In one aspect, the
3 system and method use signal matching to produce reliable matches. In another aspect,
4 the system and method use a combination of signal and feature representation and an
5 automatic decision rule together with a human-in-the-loop approach. A feature vector
6 and a processed time signal are computed for each song in a database and extracted from
7 a microphone-recorded sample of music. The database songs are first sorted by feature
8 space distance with respect to the feature vector of the recorded sample. The processed
9 time signals of the database songs and the processed time signal from the recorded sample
10 are processed using signal matching. A decision rule presents likely matches to the user
11 for confirmation. Using signal matching, feature-ordered search and a decision rule
12 results in an effective framework for finding a song from a brief microphone recorded
13 sample of music.